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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/804,618	03/12/2001	Dale C. Flanders	1084-US	3159

25263 7590 06/04/2003

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EXAMINER

NGUYEN, JOSEPH H

ART UNIT	PAPER NUMBER
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2815

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/804,618

Applicant(s)

FLANDERS ET AL.

Examiner

Joseph Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 13-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Miller et al.

Regarding claim 1, Miller at al discloses on figures 1- 2 an optical membrane device comprising a support 100; a device layer 125 in which a deflectable membrane structure is formed; a sacrificial layer 110 separating the support from the device layer, the sacrificial layer being selectively removed to release the membrane structure; and an optically curved surface 16 (figure 2) on the deflectable membrane and on an optical axis of the optical membrane device.

Regarding claim 2, Miller at al discloses on figures 1-2 the optical surface 16 is formed in an optical element layer that is deposited on the device layer.

Regarding claim 3, Miller at al discloses on figures 1- 2 the optical surface is etched into the device layer.

Regarding claim 4, Miller at al discloses on figures 1- 2 the optical surface is a concave surface 120 that is etched into the device layer.

Regarding claim 5, Miller at al discloses on figures 1- 2 the optical surface is a convex surface 16 that is etched into the device layer.

Regarding claim 6, Miller at al discloses on figures 1- 2 the sacrificial layer 110 defines an electrical cavity across which electrical fields are established to deflect the membrane structure in a direction of the support.

Regarding claim 7, Miller at al discloses on figures 1- 2 the membrane structure comprises a center body portion 156; an outer portion 152, which is at least partially supported by the sacrificial layer 110 and tethers 158 that extend between the center body and the outer portion 152.

Regarding claim 8, Miller at al discloses on figures 1- 2 the sacrificial layer 110 defines an electrical cavity across which electrical fields are established to deflect the membrane structure in a direction of the support.

Regarding claim 9, Miller at al discloses on figures 1- 2 the membrane structure comprises a center body portion 156; an outer portion 152, which is at least partially supported by the sacrificial layer 110; and tethers 158 that extend between the center body portion and the outer portion 152.

Regarding claim 10, Miller at al discloses on figures 1- 2 comprising an optical coating 140 deposited over the optical surface.

Regarding claim 11, Miller at al discloses on figures 1- 2 the optical coating is multi dielectric mirror (col. 3, lines 25-26).

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Regarding claim 12, Miller et al discloses on figures 1- 2 the optical is antireflection coating 105.

Regarding claim 23, Miller et al discloses on figures 1-2 the optically curved surface 16 of the deflectable membrane is centered on the optical axis of the optical membrane device.

Regarding claim 24, Miller et al discloses on figures 1-2 the optically curved surface of the deflectable membrane is centered on the deflectable membrane.

Claims 1-3, 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Tayebati et al (WO 99/34484).

Regarding claim 1, Tayebati et al discloses on figure 3F an optical membrane device comprising a support 24; a device layer in which a deflectable membrane structure 37 is formed; a sacrificial layer 30 separating the support from the device layer, the sacrificial layer being selectively removed to release the membrane structure; and an optically curved surface 12 on the deflectable membrane and on an optical axis of the optical membrane device.

Regarding claims 2-3, 5-6, Tayebati et al discloses on figure 3F all the structures set forth in the claimed invention.

Response to Arguments

Applicant's arguments with respect to claims 1-12,23-24 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Nguyen whose telephone number is (703) 308-1269. The examiner can normally be reached on Monday-Friday, 7:30 am- 4:30 pm

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned is (703) 308-7382 for regular communications. Any inquiry of a general nature or relating to the status of this

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application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JN

June 2, 2003

A handwritten signature in black ink, appearing to read 'Eddie Lee', with a large, sweeping initial 'E'.

EDDIE LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800